

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016994**Date Inspected:** 04-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Shi Lei

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Segment Trial Assembly

ZPMC presented QA personnel with "Notification of Witness Inspection" document number 6578 that stated ZPMC was requesting Caltrans to perform visual and magnetic particle (MT) inspections of "T" and "I" rib hold back welds adjacent to the transverse splice weld joint on OBG segment 10AW adjacent to where it will be welded to OBG segment 9EW. This QA Inspector performed random visual and magnetic particle (MT) inspections of welds

BP102-001-037, 038; BP48-001-033, 034; BP156-001-033, 034, 037, 038; SP775-001-033, 034, 039, 040; SP735-001-023, 024; SP497-001-028, 029, SP675-002-026, 027, 028, EP131-001-009, 010, DP688-001-011, 012.

This QA Inspector observed an arc strike near one end of weld SP735-001-023 and weld SP735-001-024 had a 10 mm length near the center of the weld had overlap. This QA Inspector showed ABF CWI Mr. Kelvin Chueng and ZPMC CWI Mr. Shi Lei the arc strike and weld overlap and they had one of the ZPMC workers use a grinder to remove the arc strike and blend the weld overlap. Following completion of this grinding, items observed by this QA Inspector appeared to comply with AWS D1.5 MT and visual requirements. For additional information on

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these inspections see this QA Inspector's TL6028 Magnetic Particle Test Report. Caltrans QA Inspector Mr. Mike Hasler also performed MT and visual inspections of other "T" and "I" rib hold back welds adjacent to the transverse splice weld joint on the counterweight side of OBG segment 10AW. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Gong Ruiqiang, stencil 2018707 used shielded metal arc procedure WPS-B-P-2112-FCM-1 to tack weld OBG segment 10BW / 10CW cross beam side longitudinal diaphragm between panel points PP91 and PP92. This QA Inspector observed the welding electrodes were being stored in a portable rod oven which was connected to an electric power cable, Mr. Gong Ruiqiang had a welding current of approximately 155 amps and Mr. Gong Ruiqiang appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder stencil 500489 had recently used shielded metal arc procedure WPS-B-P-2114-FCM-1 to tack weld OBG segment 10BW / 10CW counterweight side longitudinal diaphragm between panel points PP91 and PP92. ZPMC CWI Mr. Shi Lei indicated that no additional welding would be performed at this location during this shift. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Jun, stencil 053486 used flux cored welding procedure WPS-B-T-2231-TC-U4b-F-1 to make weld OBW10K-006. This weld joins a counterweight attachment plate to OBG segment 10BW side plate. This QA Inspector observed ZPMC CWI Mr. Shi Lei has been monitoring this welding. This QA Inspector observed Mr. Wu Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
